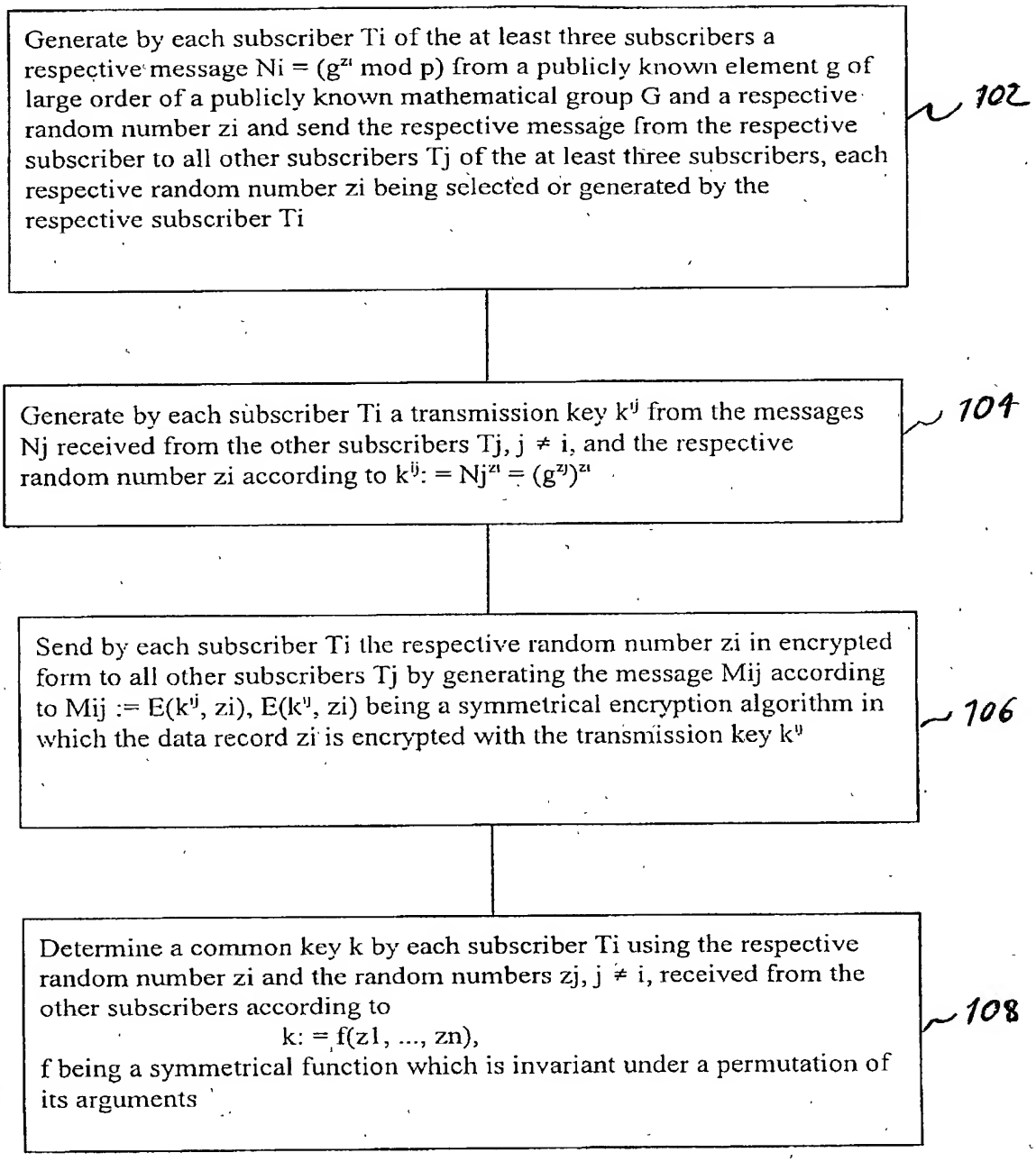
Generate by each subscriber Ti of the at least three subscribers a respective message Ni = (g^zi mod p) from a publicly known element g of large order of a publicly known mathematical group G and a respective random number zi and send the respective message from the respective subscriber to all other subscribers Tj of the at least three subscribers, each respective random number zi being selected or generated by the respective subscriber Ti
102
Generate by each subscriber Ti a transmission key k^ij from the messages Nj received from the other subscribers Tj, j ≠ i, and the respective random number zi according to k^ij: = Nj^zi = (g^zj)^zi
104
Send by each subscriber Ti the respective random number zi in encrypted form to all other subscribers Tj by generating the message Mij according to Mij := E(k^ij, zi), E(k^ij, zi) being a symmetrical encryption algorithm in which the data record zi is encrypted with the transmission key k^ij
106
Determine a common key k by each subscriber Ti using the respective random number zi and the random numbers zj, j ≠ i, received from the other subscribers according to
k: = f(z1, ..., zn),
f being a symmetrical function which is invariant under a permutation of its arguments
108

FIG. 1